

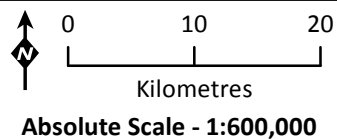
Legend

- Major Towns
- Great Northern Hwy
- Major Roads
- BOTS Proposal Area

Significant Fauna Recorded

Name

- Bilby - Threatened
- Northern Quoll - Threatened
- Pilbara Leaf-nosed Bat - Threatened
- Pilbara Olive Python - Threatened
- Little Western Freetailed Bat - Priority 1
- ▲ Australian Bustard - Priority 4
- ▲ Brush-tailed Mulgara - Priority 4
- ▲ Bush Stone curlew - Priority 4
- ▲ Ghost Bat - Priority 4
- ▲ Grey Falcon - Priority 4
- ▲ Long-tailed Dunnart - Priority 4
- ▲ Pebble Mound mouse - Priority 4
- ▲ Western Pebble-mound Mouse - Priority 4
- ◆ Woma - Other

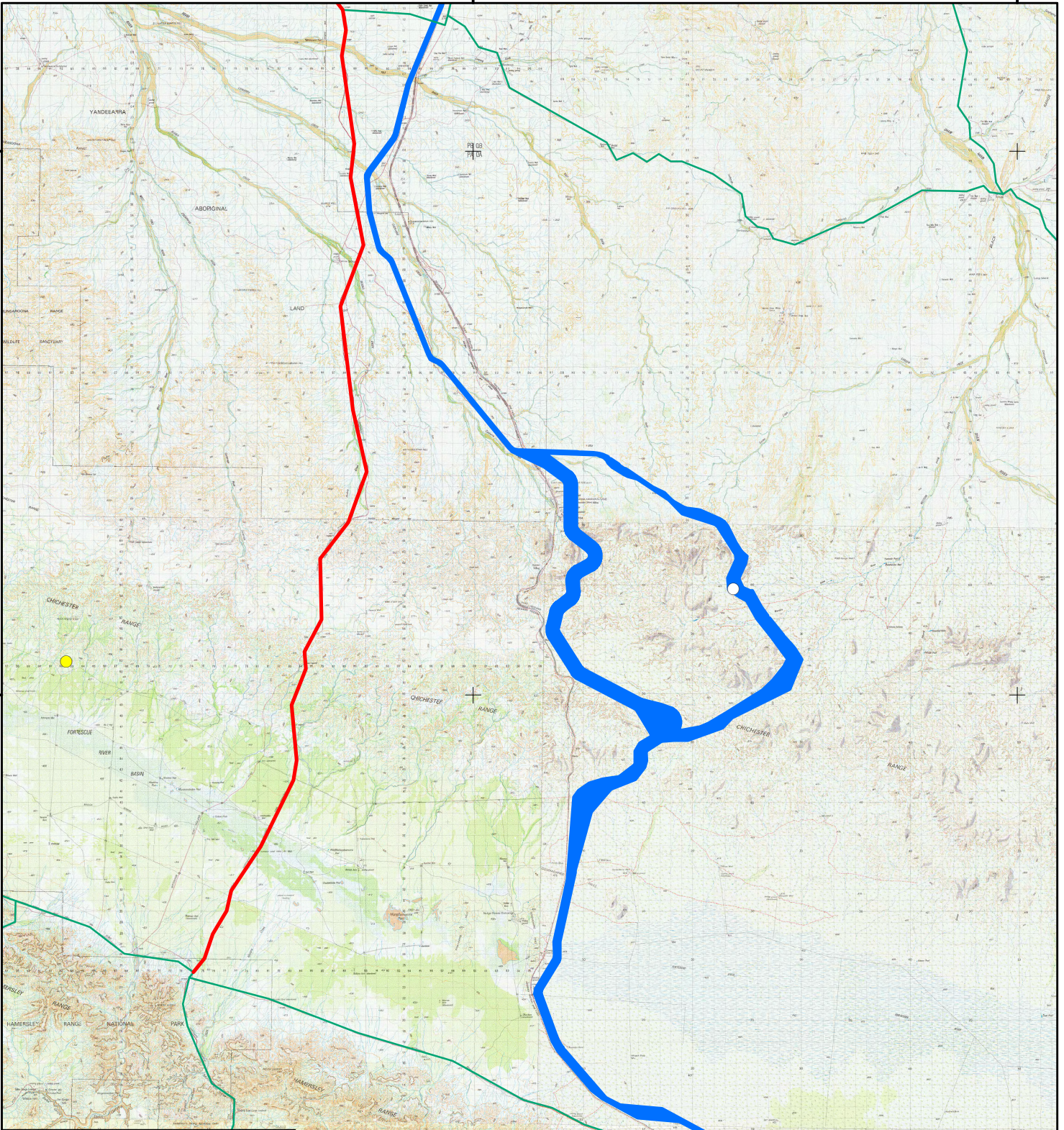


Fauna Species of Conservation Significance Recorded During Reviewed Biological Surveys - northern portion

Figure: 19
Project ID: 1651

Drawn: BH
Date: 13/11/2015

Coordinate System
Name: GDA 1994 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA 1994



Legend

- Major Towns
- Great Northern Hwy
- Major Roads
- MRL Project Site
- BOTS Proposal Area

Migratory Fauna Species Recorded

Name

- Cattle Egret
- Rainbow Bee-eater

0 9 18
Kilometres
Absolute Scale - 1:500,000



Migratory Fauna Species Recorded During Reviewed Biological Surveys - southern portion

Figure: 20
Project ID: 1651

Coordinate System
Name: GDA 1994 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA 1994

Drawn: BH
Date: 13/11/2015

A4

650000

700000

7750000

7700000

7650000

Port Hedland

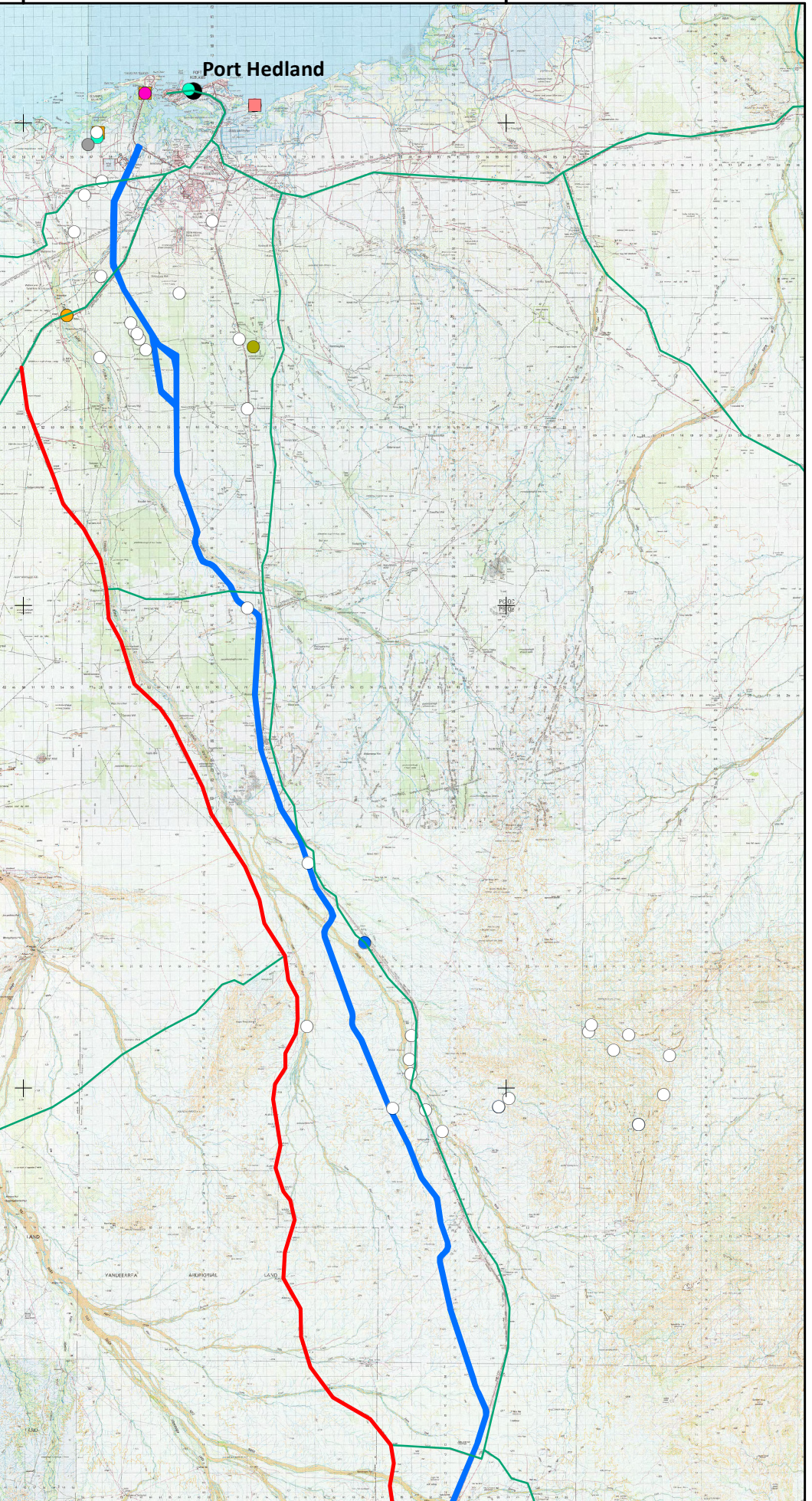
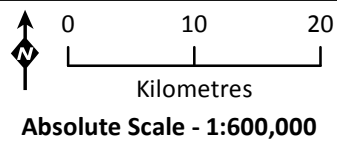
Legend

- Major Towns
- Great Northern Hwy
- Major Roads
- BOTS Proposal Area

Migratory Fauna Species Recorded

Name

- Bar-tailed Godwit
- Caspian Tern
- Eastern Great Egret
- Eastern Osprey
- Eastern Reef Egret
- Fork-tailed Swift
- Grey Plover
- Grey-tailed Tattler
- Oriental Plover
- Rainbow Bee-eater
- Red-necked Stint
- Ruddy Turnstone
- Whimbrel
- White-bellied Sea Eagle



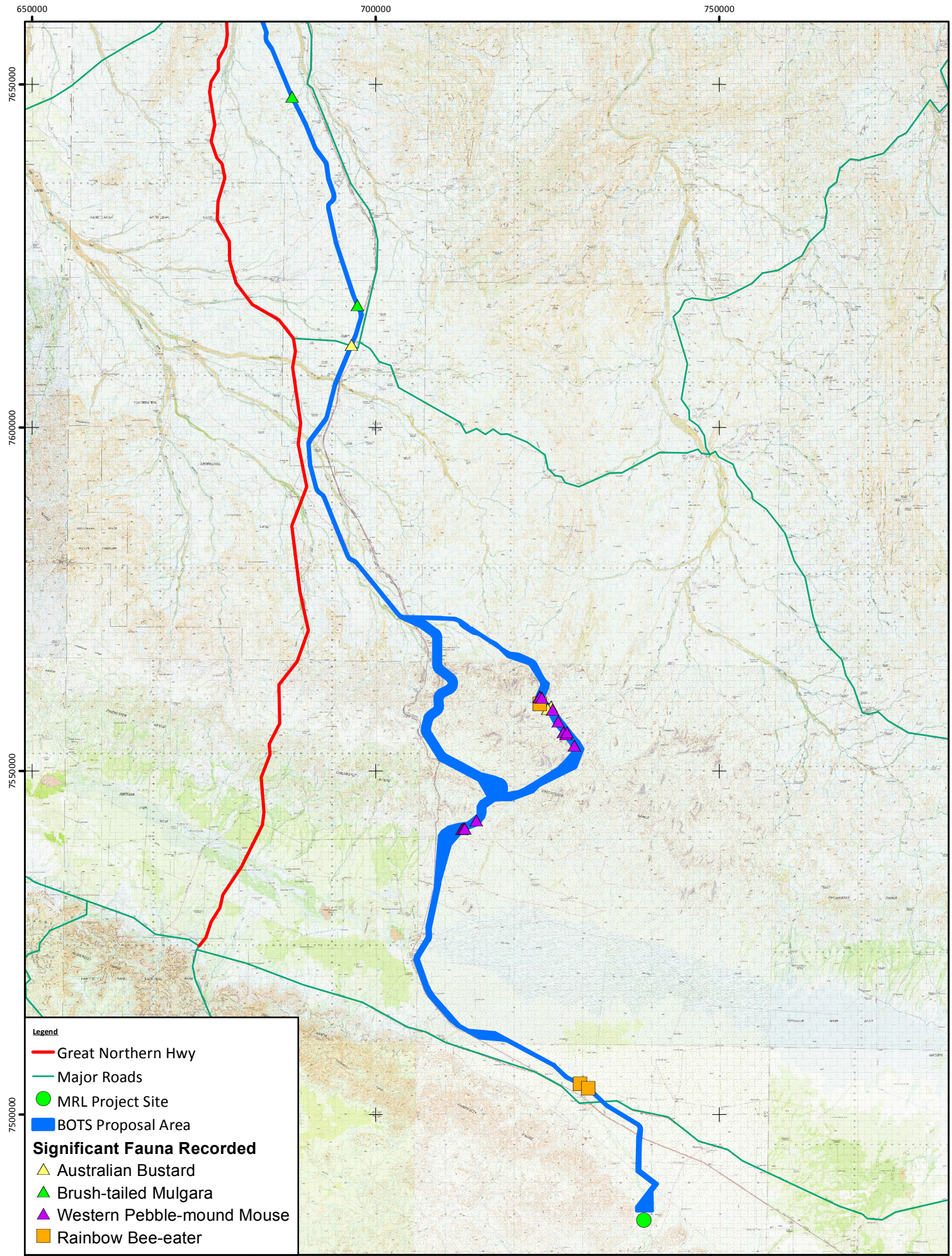
**Migratory Fauna Species
Recorded During Reviewed
Biological Surveys -
northern portion**

Figure: 21
Project ID: 1651

Coordinate System
Name: GDA 1994 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA 1994

Drawn: BH
Date: 13/11/2015

A4

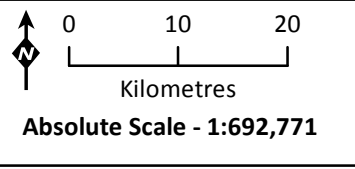


Legend

- Great Northern Hwy
- Major Roads
- MRL Project Site
- BOTS Proposal Area

Significant Fauna Recorded

- ▲ Australian Bustard
- ▲ Brush-tailed Mulgara
- ▲ Western Pebble-mound Mouse
- Rainbow Bee-eater



Fauna Species of Conservation Significance Recorded within the Proposal Area southern portion

Figure: 22
Project ID: 1651

Drawn: BH
Date: 13/11/2015

Coordinate System
Name: GDA 1994 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA 1994



Legend

- Major Towns
- Great Northern Hwy
- Major Roads
- BOTS Proposal Area

Significant Fauna Recorded

- Northern Quoll
- ▲ Australian Bustard
- ▲ Brush-tailed Mulgara
- ▲ Ghost Bat
- ▲ Western Pebble-mound Mouse
- Rainbow Bee-eater



Image: Northern Quoll habitat (Engenium 2015)

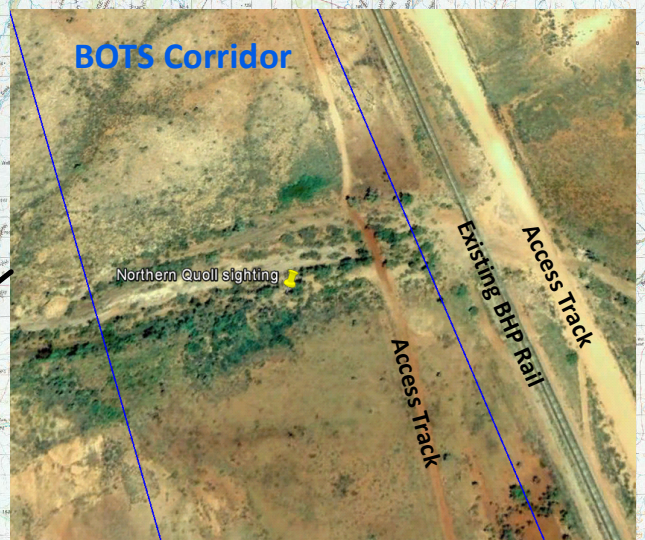
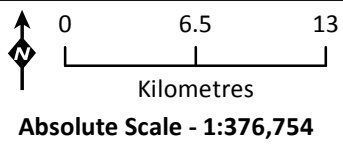


Image: Northern Quoll record



Fauna Species of Conservation Significance Recorded within the Proposal Area northern portion

Figure: 23
Project ID: 1651

Drawn: BH
Date: 13/11/2015

Coordinate System
Name: GDA 1994 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA 1994

5.2.4. HYDROLOGICAL PROCESSES

One ESA, listed under the EP Act and the EPBC Act, the Fortescue Marsh, is located in a small portion of the Proposal Area (**Figure 13**). The Fortescue Marsh is also listed as a Nationally Important Wetland under the EPBC Act. It is described as an extensive, inland floodplain system that lies between the Hamersley and Chichester Ranges. The system is irregularly inundated and is fed by fresh surface water flows from the upper reaches of the Fortescue River, Kulkinbah Creek, Weeli Wolli Creek and other numerous short creeks emerging from the Hamersley gorges (DotE 2015).

The Proposal Area intersects approximately 165 ha of the total mapped extent of the Fortescue Marsh ESA (108,622 ha), being less than 1% of the whole wetland system. Based on the proposed disturbance of a 60m corridor along the length of the Proposal Area, the actual disturbance associated with the rail and access road (if required) will be no more than 22ha of the Fortescue Marsh ESA (<1%).

Other major surface water systems intersecting the Proposal Area include:

- Turner River
- Turner River East
- Yule River
- Coonarrie Creek
- Garden Creek
- Weeli Wolli Creek.

Surface water flows will not be impeded by the elevated nature of the BOTS structure. The substantial surface water systems listed above will correspond with medium to high type modules. Other flat sheet wash areas may be traversed by low type modules, however as these are still elevated, surface water flows will not be impeded.